Amendments to the Claims:

Listing of Claims:

1. (currently amended) A predictive decoding method for decoding a picture to generate a plurality of predictors of a plurality of blocks corresponding to the picture, the predictive decoding method comprising the steps of:

(a) storing a plurality of first vertical predictors of a first block into a storing column of a first memory device, and storing a plurality of first horizontal predictors of a second block into a storing row of the first memory device;

(b) performing a prediction operation for generating a plurality of target vertical predictors and a plurality of target ~~vertical~~ horizontal predictors of a first target block according to the first vertical predictors and the first horizontal predictors, wherein the first target block is adjacent to the first and second blocks, and the first block and the first target block are located at the same row; and

(c) updating the storing column of the first memory device by the target vertical predictors, and updating the storing row of the first memory device by the target horizontal predictors, wherein the target vertical and the target horizontal predictors lie in the first target block.

2. (original) The predictive decoding method of claim 1 wherein the first and second blocks and the first target block are located within different macro-blocks each comprising a plurality of blocks, the first target block is not located at a bottom row of a corresponding macro-block, and step (c) updates the storing column by the target vertical predictors and updates the storing rows by the target horizontal predictors.

3. (original) The predictive decoding method of claim 2 wherein step (a) further comprises storing a diagonal predictor for the first target block into a memory cell of the first memory device, step (b) generates the target horizontal predictors and the target vertical predictors according to the diagonal predictor, the first vertical

predictors, and the first horizontal predictors, and step (c) further comprises updating the memory cell of the first memory device by a diagonal predictor for a second target block being processed after the first target block, wherein the first and second target blocks are located within the same macro-block.

4. (original) The predictive decoding method of claim 1 wherein the first block and the first target block are located within a macro-block comprising a plurality of blocks, the second block is located within another macro-block comprising a plurality of blocks, the first target block is not located at a bottom row of the corresponding macro-block, the first vertical predictors are stored in a first part of the storing column, the first horizontal predictors are stored in a first part of the storing row, and step (c) updates the first part of the storing column by the target vertical predictors and updates a second part of the storing row by the target horizontal predictors.

5. (original) The predictive decoding method of claim 4 wherein step (a) further comprises storing a diagonal predictor for the first target block into a memory cell of the first memory device, step (b) generates the target horizontal predictors and the target vertical predictors according to the diagonal predictor, the first vertical predictors, and the first horizontal predictors, and step (c) further comprises updating the memory cell of the first memory device by a diagonal predictor for a second target block being processed after the first target block, wherein the first and second target blocks are located within the same macro-block.

6. (original) The predictive decoding method of claim 1 wherein the first block is located within a macro-block comprising a plurality of blocks, the second block and the first target block are located within another macro-block comprising a plurality of blocks, the target block is located at a bottom row of the corresponding macro-block, and step (c) updates the storing column by the target vertical predictors without updating the

storing row.

7. (original) The predictive decoding method of claim 6 wherein step (a) further comprises storing a diagonal predictor for the first target block into a memory cell of the first memory device, step (b) generates the target horizontal predictors and the target vertical predictors according to the diagonal predictor, the first vertical predictors, and the first horizontal predictors, and step (c) further comprises updating the memory cell of the first memory device by a diagonal predictor for a second target block being processed after the first target block, wherein the first and second target blocks are located within the same macro-block.

8. (original) The predictive decoding method of claim 6 further comprising storing the target horizontal predictors into a second memory device.

9. (original) The predictive decoding method of claim 1 wherein the first and second blocks and the first target block are located within a macro-block comprising a plurality of blocks, the first target block is located at a bottom row of the macro-block, and step (c) updates the storing column by the target vertical predictors without updating the storing row.

10. (original) The predictive decoding method of claim 9 wherein step (a) further comprises storing a diagonal predictor for the first target block into a memory cell of the first memory device, step (b) generates the target horizontal predictors and the target vertical predictors according to the diagonal predictor, the first vertical predictors, and the first horizontal predictors, and step (c) further comprises updating the memory cell of the first memory device by a diagonal predictor for a second target block being processed after the first target block, wherein the first and second target blocks are not located within the same macro-block.

11. (original) The predictive decoding method of claim 9 further comprising storing the target horizontal predictors into a second memory device.

12. (original) The predictive decoding method of claim 1 wherein the picture conforms to an MPEG specification.

13. (original) The predictive decoding method of claim 12 wherein the vertical and horizontal predictors of a block lie in the most left column and top row of the block, and the horizontal predictors and the vertical predictors of the block respectively comprise a DC coefficient and a plurality of AC coefficients.

14. (currently amended) A method for storing a plurality of predictors of a macro-block into a first memory device and a second memory device, the macro-block comprising a first block, a second block, a third block, and a fourth block, the method comprising:

(a) generating a plurality of predictors of the first block according to a first adjacent block and a second adjacent block;

(b) after proceeding with step(a), storing the predictors of the first block into the first memory device, wherein the predictors of the first block lie in the first block;

(c) after proceeding with step(b), generating a plurality of predictors of the second block according to a third adjacent block and the first block;

(d) after proceeding with step(c), storing the predictors of the second block into the first memory device, wherein the predictors of the second block lie in the second block;

(e) after proceeding with step(d), generating a plurality of predictors of the third block according to a fourth adjacent block and the first block;

(f) after proceeding with step(e), storing the predictors of the third block into the first memory device and the second memory device, wherein the predictors of the third

block lie in the third block;

(g) after proceeding with step(f), generating a plurality of predictors of the fourth block according to the second block and the third block; and

(h) after proceeding with step(g), storing the predictors of the fourth block into the first memory device and the second memory device, wherein the predictors of the fourth block lie in the fourth block.

15. (original) The method of claim 14 wherein a plurality of predictors for each block comprise a plurality of vertical predictors, a plurality of horizontal predictors, and a diagonal predictor, and the method further comprises:

(i) in step(b), storing a plurality of vertical predictors of the first block into a storing column of the first memory device, and storing a plurality of horizontal predictors of the first block into a storing row of the first memory device;

(j) in step(d), storing a plurality of vertical predictors of the second block into the storing column of the first memory device, and storing a plurality of horizontal predictors of the second block into the storing row of the first memory device;

(k) in step (f), storing a plurality of vertical predictors of the third block into the storing column of the first memory device, and storing a plurality of horizontal predictors of the third block into the second memory device; and

(l) in step (h), storing a plurality of vertical predictors of the fourth block into the storing column of the first memory device, and storing a plurality of horizontal predictors of the fourth block into the second memory device.

16. (original) The method of claim 15 wherein in step(j), the vertical predictors of the second block stored into the storing column of the first memory device replace the vertical predictors of the first block initially stored in the storing column, and in step(l), the vertical predictors of the fourth block stored into the storing column of the first memory device replace the vertical predictors of the third block initially

stored in the storing column.

17. (original) The method of claim 15 wherein the vertical and horizontal predictors of a block lie in the most left column and top row of the block, and the vertical predictors and the horizontal predictors of the block respectively comprise a plurality of AC coefficients and a DC coefficient.

18. (original) The method of claim 14 wherein the first block is at an upper-left site of the macro-block, the second block is at an upper-right site the macro-block, the third block is at a lower-left site of the macro-block, and the fourth block is at a lower-right site of the macro-block.

19. (original) The method of claim 14 wherein the first adjacent block is at a left side of the first block, the second adjacent block is at an upper side of the first block, the third adjacent block is at an upper side of the second block, and the fourth adjacent block is at a left side of the third block.

20. (original) The method of claim 14 wherein the macro-block conforms to an MPEG specification.

21. (new) The method of claim 1, being employed in a decoder and performed prior to a motion compensation performed by the decoder.

22. (new) The method of claim 14, being employed in a decoder and performed prior to a motion compensation performed by the decoder.